

CLAIMS

We claim:

1. In a vehicle comprising a first device and a second device, an active
5 network communicatively coupling the first and second data devices, the active
network including a plurality of active network elements coupled by connection
media, the plurality of active network elements and connection media being
configurable to provide a plurality of communication paths between the first device
and the second device for a communication between the first device and the second
10 device.

2. The vehicle of claim 1, wherein each of the first and second devices are
coupled to at least one of the active network elements.

15 3. The vehicle of claim 2, wherein at least one of the active elements
comprises a switch.

4. The vehicle of claim 2, wherein at least one of the active elements
comprises a bridge.

20 5. The vehicle of claim 2, wherein at least one of the active elements
comprises a router.

25 6. The vehicle of claim 1, wherein the active network comprises a packet data
network.

7. The vehicle of claim 1, wherein the active network complies with an Internet protocol standard.

8. The vehicle of claim 1, comprising an interface coupled to the active network to receive configuration information, the data transport medium being configurable responsive to the configuration information.

9. The vehicle of claim 7, wherein the interface comprises a wireless interface.

10. The vehicle of claim 1, wherein the active network is reconfigurable responsive to detection of a fault within the data transport medium.

11. The vehicle of claim 1, wherein the active network is automatically, periodically reconfigured.

12. The vehicle of claim 1, wherein one of the plurality of active network elements comprises a root node element, and wherein the active network is configured relative to the root node element.

13. The vehicle of claim 1, wherein the active network is configured to include time information.

14. Within a motor vehicle, an active network for communicating data between a first device and a second device within the motor vehicle, the active network comprising:

a data interface to each of the first device and the second device for coupling the first device and the second device, respectively, to the active network, wherein the data interface operates to accept data from or deliver data to the device, respectively, independently of the functionality of the respective device;

a plurality of active network elements coupled by connection media;

the interfaces being coupled to at least one of the active network elements; and

wherein the active network elements are configurable to define a plurality of communication paths between the first device and the second device for a communication between the first device and the second device.

15. The active network of claim 14, wherein the active network comprises a packet data network.

16. The active network of claim 14, wherein the active elements are selected from the group of active elements comprising: a switch, a bridge and a router.

17. The active network of claim 14, wherein the active network elements are reconfigurable responsive to detection of a fault within the data transport medium.

18. The active network of claim 14, wherein the active network elements are automatically, periodically reconfigured.

19. The vehicle of claim 14, wherein one of the plurality of active network elements comprises a root node element, and wherein the active network is configured relative to the root node element.

- 5 20. The vehicle of claim 14, wherein the active network is configured to include time information.